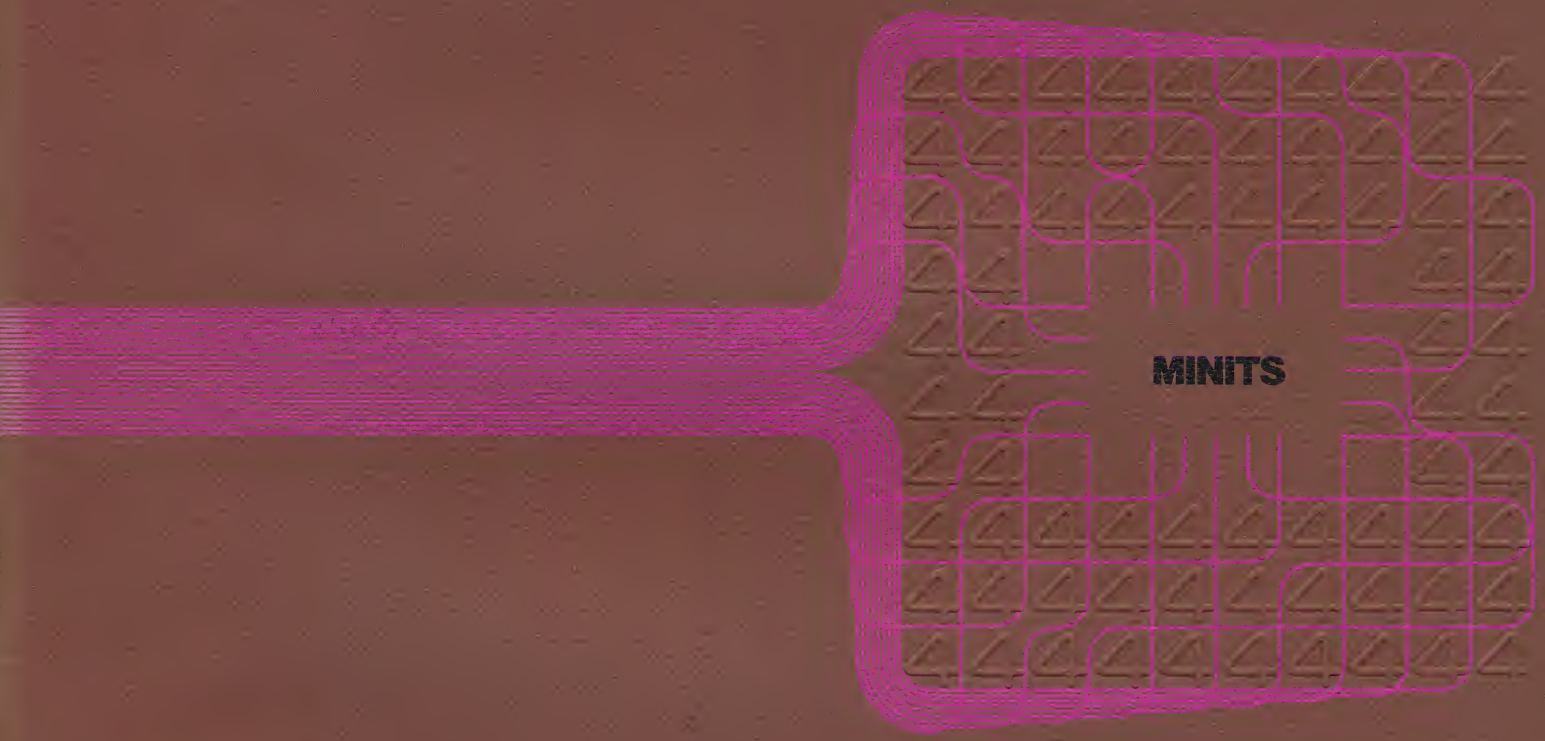

MINITS

Sharing the Fourth Dimension with the Jacobi MINITS Series

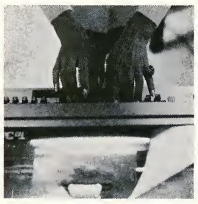
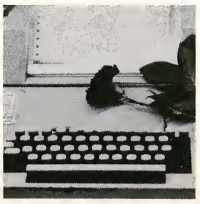
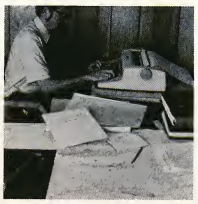
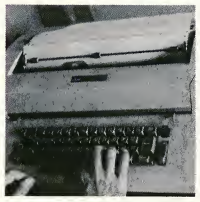
Time, that elusive fourth dimension — and hardware, fourth generation variety, are optimized in the Jacobi MINITS Series of low cost advance MINIature Time-Sharing computer systems.

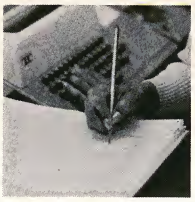
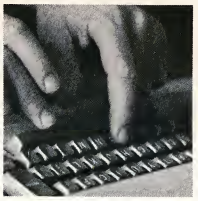
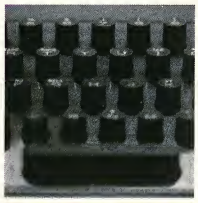
Result . . . increased efficiency and substantial savings for companies now using outside time-sharing subscription services— or for users of large-scale in-house computers operating in the batch mode.

MINITS I is a stand-alone time-sharing system. MINITS II provides time-sharing and remote job entry to the UNIVAC 1108.

Features

Advanced Conversational Software
Reliable Fourth Generation Hardware
Simultaneous Users — Maximum of 24
Response Time — 4 Seconds Maximum
2.5 Seconds Average
Computing Economy — $2 an Hour
Integration with Large-Scale Computers

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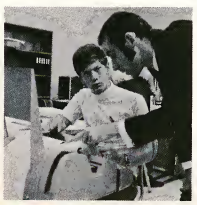
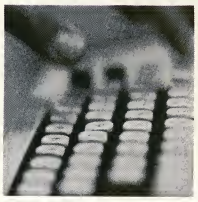
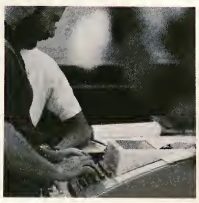
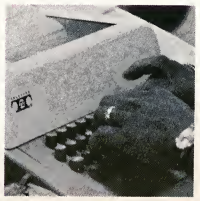
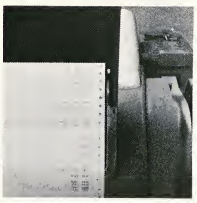
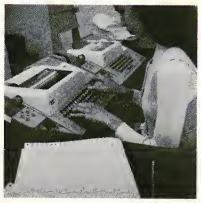
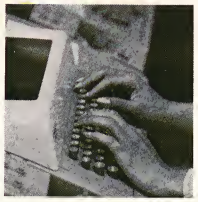
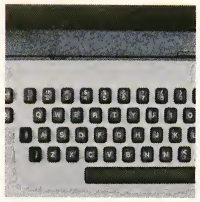


MINITS I
A Stand-Alone Time-Sharing Computer System

Meet MINITS I — a small, yet very advanced, stand-alone time-sharing computer system designed for scientific users.

MINITS I is ideal for companies wishing to embark on time-sharing on a modest basis. Or for firms currently spending over $2,000 a month on outside time-sharing services.

MINITS I costs only about $2 an hour to operate — compared to typical outside service charges of $6 to $10 an hour. In addition, MINITS I brings full user control inside your company which means the security of your data is protected. It is accessible with no peak load slowdowns.

MINITS I is field-expendable too. When the time comes, it can be an economical, hard working helper to that larger general purpose computer.

Multi-Lingual Speaker

Because MINITS was conceived with the user in mind, it uses a number of programming languages familiar to him.

ENRICHED BASIC — an expansion of the time-sharing language developed at Dartmouth College. An easily learned language for both the scientific and business professional.

MINITS FORTRAN — a high level problem-solving language, which offers interactive communication between user and his program, through incremental compilation.

EDITOR — an editor capable of particular character or complete line changes.

DESKALCULATOR — a simple language for the user who requires simple desk calculator functions.

Saves Engineering Time

Engineering time is too valuable to be wasted. But that's what happens when it takes hours, even days, to receive answers from the batch processing computer center or service bureaus.

MINITS eliminates this problem. By bringing the computer to the office—the laboratory—the field, via the teletype terminal.

Up to 32 TTY's can be connected to MINITS. 24 of them can simultaneously communicate with the system.

Your engineers can now work more — wait less. The power of stored program computing is right at their fingertips. As simple and as available as the slide rule. Anwers are returned immediately after the problem is described in program language using the teletype keyboard.

We Call It MINITS, But It Responds In Seconds

MINITS is fast. With a maximum response of only 4 seconds, it is the fastest time-sharing computer in its class. This exceptional throughput is achieved using a fast read-only memory — the latest innovation in Jacobi developed "firmware."

MINITS II
The Perfect Mate
For The 1108

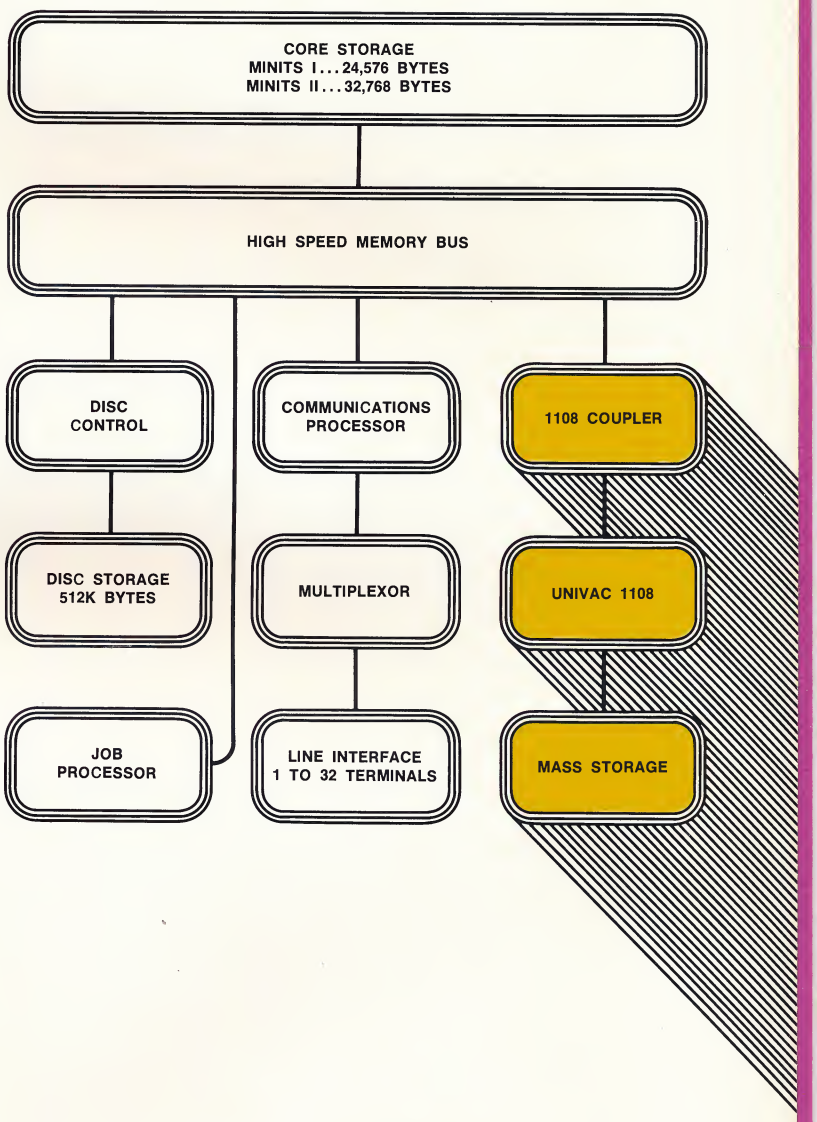
Meet MINITS II — It has all the features of MINITS I plus the necessary hardware and software to communicate with the powerful UNIVAC 1108.

Here's why we call it the Perfect Mate For the 1108.

The 1108 continues to operate in its normal modes, under EXEC II or EXEC 8. MINITS II adds remote time-sharing and job entry capability. MINITS II terminals can be used for conversational checkout of 1108 programs; file retrieval, update and submission. MINITS II can also reduce the batch pressure on the 1108 by completing a great deal of useful work prior to entering data into the job stream of the larger computer.

Breaks The
Time Bottle Neck

With the addition of MINITS II, thirty-two remote users — 24 of them simultaneously — can make use of the lightning speed and mass storage of the 1108. Engineers and programmers can enter problems from terminals right at their desks. Compare this to the time consuming normal batch operating procedures which require punching, verifying and listing of cards, desk checking, submitting them to the computer, execution, listing of results, collating and returning to sender. With MINITS II, one step replaces eight. MINITS II expands the influence of the powerful UNIVAC 1108 into every department of the company. And in many cases, problems can be completely handled within MINITS II — with answers in a matter of seconds.



MINITS II
Pays For Itself

1108 computing time is expensive — hundreds of dollars an hour. MINITS II computing time costs only a few dollars an hour.

That's why MINITS II starts paying for itself as soon as it's connected to your 1108. By taking over the time consuming task of program compiling and debugging.

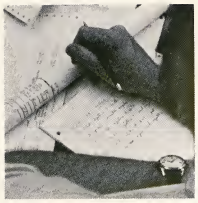
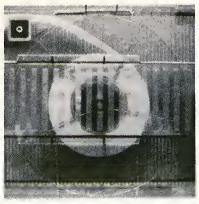
For example. MINITS II users are provided a diagnostic pre-scan package. At his remote terminal, the MINITS II user can code, syntax-check and correct all FORTRAN V and SLEUTH routines, before compiling and executing on the 1108. Also, MINITS FORTRAN can be used to de-bug FORTRAN programs prior to submission to the 1108 job stream.

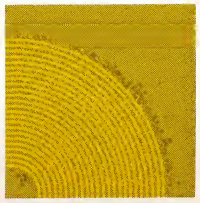
MINITS II and UNIVAC 1108. A perfect mating of low cost preparation and high speed, production.

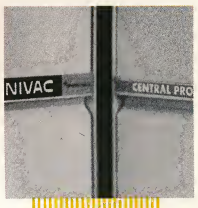
Thanks For The
Memory

The huge mass storage of the UNIVAC 1108 is accessible to all MINITS II time-sharers. MINITS files can be extracted from 1108 storage, updated using the MINITS EDITOR, returned to storage, or submitted to the 1108 job stream for execution.

Your engineers — no matter where their offices or labs — can have available the largest storage of any time-sharing system in this class.

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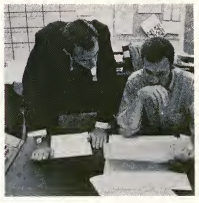

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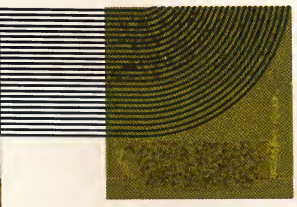

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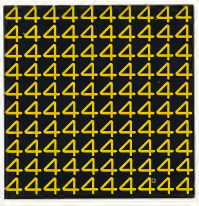
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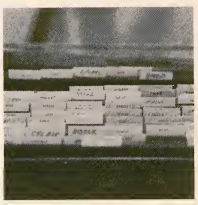

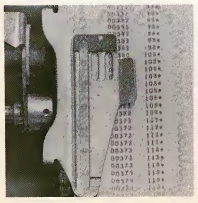

MINITS Software

The power and versatility of MINITS lies not only with the high-performance hardware, but also with the efficiency and comprehensiveness of the software.

ENRICHED BASIC

The Beginners All-Purpose Symbolic Instruction Code (BASIC) was conceived at Dartmouth specifically for time-sharing. Its outstanding advantages are its simplicity, power and economy in a wide range of problem solving applications. Thus, this easy-to-learn language is as useful to the business professional as it is to the scientist and engineer. As an incremental compiler, BASIC permits full user control with immediate error diagnostics for fast program development. MINITS Enriched BASIC closely resembles standard mathematical notation. The arithmetic power is further augmented to include matrix transpose and inversion capabilities. The immediate execution mode of statements allows the terminal to be used as a powerful desk calculator, to evaluate complicated mathematical expressions and to reduce data requiring involved calculations.

MINITS FORTRAN

MINITS FORTRAN embodies all the ideal characteristics of a high-level problem-solving language. It offers interactive communication between user and system. Its incremental compilation puts the user in constant communication at each program step allowing statements to be modified without recompiling; TYPE and ACCEPT statements are included to round out the conversational requirements during execution. MINITS FORTRAN features dimension variables, FORMAT statements, as well as a comprehensive set of mathematical subroutines.

LINUS (Minits I only)

The purpose of this processor is to provide a fast and simple language for preparing and editing of unit record files. LINUS is flexible in that the user creates the type of file data that is pertinent to the problem. The user can then quickly cause printout of the file created. Add, change or delete lines, as required.

MINITS II EDITOR (Minits II only)

MINITS II EDITOR is a unique processor in that it uses a common syntax for both line and character string editing. To accommodate the requirement of growing and changing files in a dynamic environment, MINITS II EDITOR accomplishes insertion, deletion and correction of text within a file, even portions of a line without retyping the entire line.

DESKALCULATOR

DESKALCULATOR, a simple language, is unique in that it is created for the time-sharing user who requires small amounts of computation in a highly interactive environment. DESKALCULATOR relieves the user of all burdens of storage allocation and offers problem-solving capabilities in a conversational mode.

User Commands MINITS I and II

Commands for MINITS II only are printed in brown.

LOGIN Userid	Allows user to sign on and specify ID.
LOGOUT	Allows user to sign off.
FORTRAN	Prepares system to accept FORTRAN conversational language.
LINUS (MINITS I only)	Prepares system to accept line editor.
BASIC	Prepares system to accept BASIC.
DESKAL	Prepares system to provide the DESKAL functions.
HELP	Allows user to request assistance from the system operator.
MINITS II EDITOR	Prepares system to accept editing commands.
LOAD name	Retrieves a given file from the 1108 mass storage and loads it into MINITS II storage.
GET jobname	Transfers the next block of output produced by the 1108 job, defined by its jobname.
SAVE name	This command writes the current MINITS II file onto the 1108 mass storage and assigns it the given name.
SEND name	Allows user to write the current MINITS II file onto the 1108 mass storage device in format acceptable for the job input into the 1108.
ERASE jobname	This command will release the 1108 output file for the named job.
OUTPUT	
PRINT name	Causes the named file stored on the 1108 mass storage device to be printed on the 1108 high speed printer.
SUBMIT jobname	Causes the file specified by jobname to be entered into the 1108 jobstream.
STATUS jobname	Requests the status of the designated job previously entered by the SUBMIT command.

Operator Commands MINITS I and II

ALLOW userid	Adds given user identification to the list of authorized users.
REMOVE userid	Deletes specified user identification from list of authorized users.
TALK tno, message	Causes the message to be typed on the specified user terminal.
BROADCAST message	Causes the specified message to be printed out on all active MINITS terminals.
QUIT tno	Forces a logout for the specified terminal.
SHUTDOWN message	Causes the MINIT system to reject any further LOGINS, and will respond to any attempts with the specified message.
STOP	Stops the MINITS system.

Specifications MINITS I and II

System Capacity	32 TTY Terminal Interfaces, Standard
System Loading	24 Simultaneous Users
System Response	4 Seconds Maximum; 2.5 Seconds Average
System Processors	Dual In-Line Integrated Circuit Construction; 4th Generation Architecture
Core Storage	MINITS I — 24,576 (8-bit) Bytes MINITS II — 32,768 (8-bit) Bytes
User Storage	10,000 Bytes
Disc Storage	512,000 Bytes, Public and Private Storage (All silicon electronics, head per track organization, shock mounted, controlled environment)
UNIVAC 1108 Communication	MINITS II only: Bidirectional data transfer between 1/0 channel on 1108 and high speed memory bus of MINITS
Operators Terminal	ASR-33 Teletypewriter
Standard Software	Executive Operating System Conversational Processors: Enriched BASIC, FORTRAN, DESKALCULATOR, LINE EDITOR. 1108 Enhancement Package (MINITS II only)
Dimensions	66-¼″ H 44″ W 26-⅜″ D
Weight	400 lbs. (approx. without TTY)
Power	50-60 Hz± 3 Hz 115 VAC ± 10%
Color	Front Display Panels: Bittersweet Orange Enclosure Panels: Slate Grey (Optional colors available)

Price	MINITS I $110,000 MINITS II $160,000
Lease	MINITS systems are available for lease. Terms will be supplied upon request.
Service	World-wide service facilities are available in all major areas. Maintenance Contracts quoted on request.
Warranty	Jacobi Systems Corporation warrants all its products against defective workmanship, performance and construction to the extent that we will replace or repair without charge those parts, either of our own manufacture or supplied from our authorized vendors and delivered in the system as described. Such warranty will remain in effect for ninety (90) days from date of delivery.

Prices and specifications are subject to change without notice. Purchase price is FOB plant, Los Angeles, California, and is exclusive of all additional state, local, or regional levies.

JACOBI SYSTEMS CORPORATION

16625 Saticoy Street
Van Nuys, California 91406
Telephone (213) 787-8360
TWX 910-495-2002

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Community Computer Corporation
System Bulletin Number 101A

Time Share & General Purpose Computer System

Mass Storage

The CCC 101A system provides a very large expansion to the HP 2000 external file capability by augmenting the system with a 1316-type disc pack, through the CCC 1011 drive (plug for plug compatible with the IBM 2311).

External Files

A time share user may access 16 files per program, each file 200 sectors in length, each sector containing 160 bytes (32,000 bytes total per file). Standard HP 2000 system offers just 16,384 bytes per file. The CCC 101A will allow any program in execution to access 512,000 bytes of storage, versus 131,072 for the standard HP 2000A.

Dual Processor Operation

A small processor such as the HP 2114B, when added to the system, dramatically increases the system's capability. In a sense, this may be considered foreground/foreground operation. The time share processor (2116B) and the batch processor (2114B) share the CCC 1011 disc. Both processors may read or write to files created in time share. This allows such things to be accomplished as:

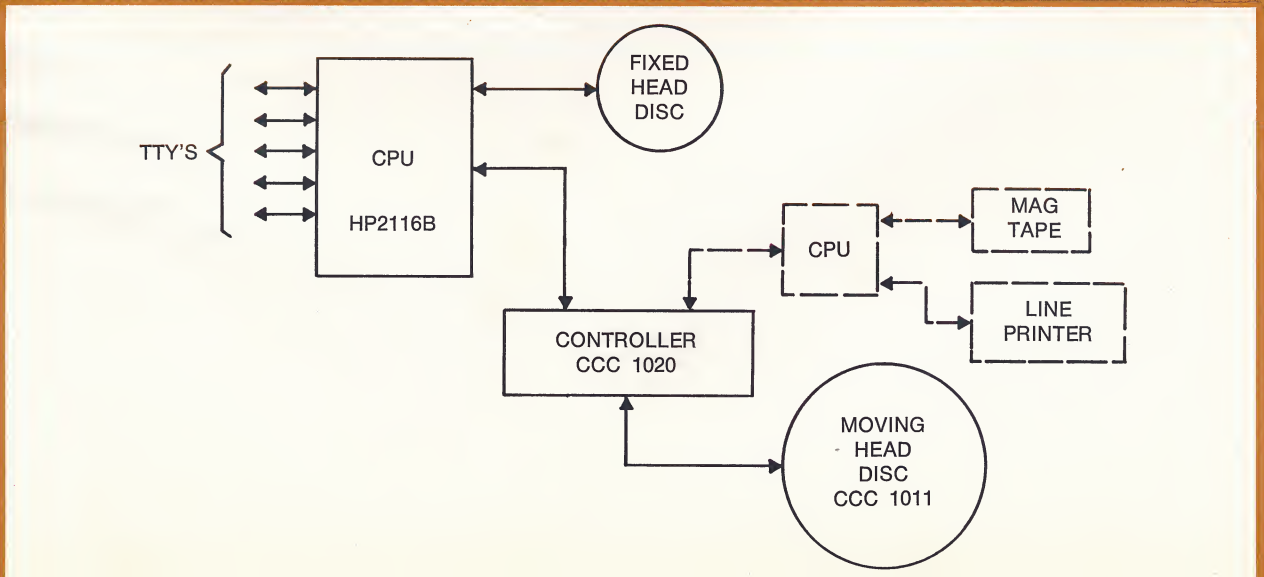
1. **Perpetual Sleep.** Continuous copying of the files onto magnetic tape usable in the event a failure occurs and the files need to be reset.
2. **File Dumping and Loading.** Maintain large data bases off-line that are updated in time share operation.
3. **High Speed Line Printer And Mag Tape Operation.** Printout of time share files are quickly and easily obtained through the 2114B onto a high speed line printer.

Features

- ☐ 2311-type on-line storage: 6 million characters
- ☐ Ultra-fast swapping means fast reaction
- ☐ Basic language (extended)
- ☐ 16 simultaneous users: workhorse capability

Community Computer Corporation
Fort Washington Industrial Park, Fort Washington, Pa. 19034
Phone (215) 643-5515

HP 2000 time share system with 6 million characters of additional file storage.



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